



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200
Fax 613 632-5246

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Past Due	Total	Supplier Name
P0041674	ACI001-VC	1	1	Net 30	M6061T6B1.250X4.500	6061-T6 Bar 1.25 X 4.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				12	11/21/2018	12		S131147	Stock	11/23/2018	\$ 34.79 / ft	0	\$417.50	Acier Ouellette Inc.
		2			M6061T6B1.750X1.750	6061-T6 Bar 1.750 X 1.750 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft						12		S131148	Stock	11/23/2018	\$ 14.25 / ft	0	\$170.96	Acier Ouellette Inc.
		10			M6061T6R1.875	6061-T6 Round Bar 1.875" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft						12		S131149	Stock	11/23/2018	\$ 18.75 / ft	0	\$225.00	Acier Ouellette Inc.
		11			M6061T6R2.750	6061-T6 Round Bar 2.750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft					20	20		S131150	Stock	11/23/2018	\$ 22.65 / ft	0	\$453.05	Acier Ouellette Inc.

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
		15			MT-4140QT-R0.375	AISI 4140 Quenched & Tempered Steel Round Bar 0.375" Dia. : AISI 4140 Q&T Round Bar : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT				12	11/23/2018	12		S131151	Stock	11/23/2018	\$ 31.95 / ft	4		\$383.52	Acier Ouellette Inc.
		18			MT-1144-R4.000	AISI 1144 Stressproof Round Bar 4.000" : MATERIAL: AISI 1144 STRESSPROOF STEEL ROUND BAR ASTM A311 or UNS G11440				10		10		S131152	Stock	11/23/2018	\$ 54.81 / ft	4		\$548.06	Acier Ouellette Inc.
		19			MT-1144-R5.000	AISI 1144 Stressproof Round Bar 5.000" : MATERIAL: AISI 1144 STRESSPROOF STEEL ROUND BAR ASTM A311 or UNS G11440				4	11/21/2018	4		S131442	Stock	11/26/2018	\$ 397.16 / ft	1		\$1,588.65	Acier Ouellette Inc.
		20			MT-4140-S-2.000X4.000	Steel Plate : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft				8		8		S131153	Stock	11/23/2018	\$ 98.13 / ft	4		\$785.00	Acier Ouellette Inc.
		21			MT-4140-S-1.500X2.000	4140 Steel Bar 1.500 X 2.000 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft						8		S131154	Stock	11/23/2018	\$ 48.13 / ft	4		\$385.00	Acier Ouellette Inc.
		22			MT-A513-T-5.250W0.375	ASTM A513 Type 5 Alloy Steel Round Tubing 5.250 Dia, 0.375 Wall				12		12		S132038	Stock	11/27/2018	\$ 103.75 / ft	0		\$1,245.00	Acier Ouellette Inc.
		26			MT-4140QT-R9.000	AISI 4140 Q&T Round Bar 9.000" Dia.				2		2		S131155	Stock	11/23/2018	\$ 724.60 / ft	4		\$1,630.36	Acier Ouellette Inc.
										Total:		112								\$5,912.67	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO041674

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO041674

PO Date: 11/9/18

Due Date: 11/15/18

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
NOV 09 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments: extra charge for palette
quote no: SOU0144781

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1 AT		M6061T6B1.250X4.500		6061-T6 Bar 1.25 X 4.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/9/18	12 ft	0 ft	12 ft	\$34.791666/ft	\$417.50
2 AT		M6061T6B1.750X1.750		6061T6 Bar 1.750 X 1.750 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/15/18	12 ft	0 ft	12 ft	\$14.246666/ft	\$170.96
3 AT		M6061T6B0.375X1.000		6061T6 Bar .375 X 1.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/15/18	20 ft	0 ft	20 ft	\$1.575/ft	\$31.50



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PURCHASE ORDER PO041674

Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4 ✓ At		M6061T6B0.750X06.000		6061T6 Bar .750 X 6.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/15/18	24 ft	0 ft	24 ft	\$20.355/ft	\$488.52
								✓ 24 ft		At 13/11/14		
5 ✓ At		M6061T6B1.000X1.000		6061T6 Bar 1.000 X 1.000 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/15/18	24 ft	0 ft	24 ft	\$4.1158333/ft	\$98.78
								✓ 24 ft		At 13/11/14		
6 ✓ At		M6061T6B2.000X01.250		6061-T6 Bar 2.00 X 1.25 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/15/18	36 ft	0 ft	36 ft	\$10.318/ft	\$371.45
								✓ 36 ft		At 12/11/14		
7 ✓ At		M6061T6R1.000		Round Bar 1.00" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/15/18	40 ft	0 ft	40 ft	\$3.015/ft	\$120.60
								✓ 40 ft		At 13/11/14		
8 ✓ At		M6061T6R1.250		6061-T6 Round Bar 1.250 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/15/18	40 ft	0 ft	40 ft	\$4.697/ft	\$187.88
								✓ 40 ft		At 13/11/14		



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041674**

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
9 ✓ AT		M6061T6R0.500		6061-T6 Round Bar .500" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/15/18	20 ft ✓ 20ft	0 ft	20 ft	\$0.8085/ft	\$16.17 AT 18/11/14
10 ✓ AT		M6061T6R1.875		6061-T6 Round Bar 1.875" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/15/18	12 ft ✓ 12ft	0 ft	12 ft	\$18.75/ft	\$225.00 AT 18/11/23
11 ✓ AT		M6061T6R2.750		6061-T6 Round Bar 2.750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/15/18	20 ft ✓ 20ft	0 ft	20 ft	\$18.75/ft	\$375.00 AT 18/11/23
Line Item Note: NOTE CUT BAR IN SECTION OF 10 FT												
12 ✓ AT		M6061T6S.500		6061-T6 0.500 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	-	11/15/18	16 sf ✓ 16sf	0 sf	16 sf	\$29.8875/sf	\$478.20 AT 18/11/14
Line Item Note: 1 PCS 48" X 48"												
13 ✓ AT		M304R1.000		304 Round Bar 1.00 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/15/18	36 ft ✓ 41ft	0 ft	36 ft	\$12.654416/ft	\$455.56 AT 18/11/14
14 ✓ AT		M304R0.375		304 Round Bar 0.375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/15/18	12 ft ✓ 12.08ft	0 ft	12 ft	\$1.2558333/ft	\$15.07 AT 18/11/14



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Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
15 ✓ AT		MT-4140QT-R0.375		AISI 4140 Quenched & Tempered Steel Round Bar 0.375" Dia. : AISI 4140 Q&T Round Bar : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed	-	11/23/18	12 ft	0 ft	12 ft	\$31.96/ft	\$383.52
16 ✓ AT		MT-4140QT-R0.875		AISI 4140 Quenched & Tempered Steel Round Bar 0.875" Dia. : AISI 4140 Q&T Round Bar : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed	-	11/15/18	20 ft	0 ft	20 ft	\$4.2115/ft	\$84.23
Line Item Note note cut bar in section 10 ft												
17 ✓ AT		MT-4140QT-R4.500		AISI 4140 Quenched & Tempered Steel Round Bar 4.500" Dia. : MATERIAL: AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR SPECIFICATION: ASTM 4140 QT or ASTM 4142 QT	Firmed	-	11/15/18	5 ft	0 ft	5 ft	\$79.466/ft	\$397.33
18 ✓ AT		MT-1144-R4.000		AISI 1144 Stressproof Round Bar 4.000" : MATERIAL: AISI 1144 STRESSPROOF STEEL ROUND BAR ASTM A311 or UNS G11440	Firmed	-	11/23/18	8 ft	0 ft	8 ft	\$98.125/ft	\$785.00
19 ✓ AT		MT-1144-R5.000		AISI 1144 Stressproof Round Bar 5.000" : MATERIAL: AISI 1144 STRESSPROOF STEEL ROUND BAR ASTM A311 or UNS G11440	Firmed	-	11/15/18	4 ft	0 ft	4 ft	\$397.1625/ft	\$1,588.65



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Hawkesbury, ON
K6A 1K7
Canada

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PURCHASE ORDER PO041674

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
20 ✓ AT		MT-4140-S-2.000X4.000		Steel Plate : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft	Firmed	-	11/15/18	8 ft	0 ft	8 ft	\$98.125/ft	\$785.00
21 ✓ A		MT-4140-S-1.500X2.000		4140 Steel Bar 1.500 X 2.000 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft	Firmed	-	11/15/18	8 ft	0 ft	8 ft	\$48.125/ft	\$385.00
22 ✓ AT		MT-A513-T-5.250W0.375		ASTM A513 Type 5 Alloy Steel Round Tubing 5.250 Dia, 0.375 Wall	Firmed	-	11/15/18	8 ft	0 ft	8 ft	\$103.75/ft	\$830.00
23		MT-O1-B-0.375X0.500		Tool Steel Bar-0.375" X 0.500"	Firmed	-	11/15/18	6 ft	0 ft	6 ft	\$21.08333/ft	\$126.50
24		MT-O1-R0.375		Tool Steel Round Bar 0.375 dia.	Firmed	-	11/15/18	6 ft	0 ft	6 ft	\$4.866666/ft	\$29.20
25 ✓ AT		M304S11GA		304/316 0.125 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed	-	11/15/18	32 sf	0 sf	32 sf	\$15.5375/sf	\$497.20
26 ✓ AT		MT-4140QT-R9.000		AISI 4140 Q&T Round Bar 9.000" Dia.	Firmed	-	11/15/18	2.25 ft	0 ft	2 ft	\$724.60444/ft	\$1,630.36

Line Item Note: 6 pcs of 4.50"

Grand Total: \$10,974.18

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/9/18 1:12 PM dart.lavoie.chantal



ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0144781

Billed to

DART AEROSPACE LTD
1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Att : PATRICK LUSSIER Tél.: (613) 632-5200 X 730

Customer N° CLI0001056
Date 2018/11/06
Revision N° 0
Prices valid until 2018/11/13
Your Order N°
Processed by Josianne Bourdon
Salesman DENIS
Carrier OUELLE SDV
Credit Terms Net 30 Days
Page 1

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
FLAT ALU 1 1/4 X 4 1/2 6061-T6 NS FAL-114412 9693 1 X 12' 3-4 DAYS	79.38	12.00	PI_\$CLB	12.00	UN_\$UN		1.00	417.500	417.50
FLAT ALU 2 X 6 6061-T6 N 1 X 12' STOCK	0.00	12.00	UN	12.00	UN		1.00	3 540.000	3 540.00
SQUARE ALU 1 3/4 6061-T6 RANDOM NS CAL-134-V 8670 1 X 12' 2-3 DAYS	43.18	12.00	PI_\$CLB	12.00	UN_\$UN		1.00	170.960	170.96
FLAT ALU 3/8 X 1 6061-T6 * FAL-381 2613 1 X 20' STOCK	9.00	20.00	PI_\$CLB	20.00	PI		1.00	31.500	31.50
FLAT ALU 1/8 X 3/4 6063-T5 * FAL-1834 2552 5 X 21' STOCK	11.87	105.00	PI_\$CLB	105.00	PI		5.00	8.306	41.53
FLAT ALU 3/4 X 6 6061-T6 * FAL-346 2601 2 X 12' STOCK	126.89	24.00	PI_\$CLB	24.00	PI		2.00	244.260	488.52
SQUARE ALU 1 6061-T6 * CAL-1 1781 2 X 12' STOCK	28.22	24.00	PI_\$CLB	24.00	PI		2.00	49.390	98.78
FLAT ALU 1 1/4 X 2 6061-T6 * FAL-1142 2456 3 X 12' STOCK	105.84	36.00	PI_\$CLB	36.00	PI		3.00	123.816	371.45
ROUND ALU 1 6061-T6 * RAL-1 5141 2 X 20' STOCK	37.00	40.00	PI_\$CLB	40.00	PI		2.00	60.300	120.60
ROUND ALU 1 1/4 6061-T6 * RAL-114 5121 2 X 20' STOCK	57.64	40.00	PI_\$CLB	40.00	PI		2.00	93.940	187.88

Date :

Next Page...



ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0144781

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Customer N° CLI0001056

Date 2018/11/06

Revision N° 0

Prices valid until 2018/11/13

Your Order N°

Processed by Josianne Bourdon

Salesman DENIS

Carrier OUELLE SDV

Credit Terms Net 30 Days

Page 2

Shipped to

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Att : PATRICK LUSSIER Tél.: (613) 632-5200 X 730

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
ROUND ALU 1/2 6061-T6 * RAL-12 5127 1 X 20' STOCK	4.62	20.00	PI_\$CLB	20.00	PI		1.00	16.170	16.17
ROUND ALU 1.875 6061-T6 N 1 X 12' 2-3 DAYS	0.00	1.00	UN	1.00	UN		1.00	225.000	225.00
ROUND ALU 2 3/4 6061-T6 * RAL-234 5148 1 X 20' 2-3 DAYS	139.40	20.00	PI_\$CLB	20.00	PI		1.00	453.050	453.05
ALU PLATE 1/2 6061-T651 RANDOM PAL-126061-V 4229 1 PL. 48" X 48" STOCK SAW CUT SCIE 1	116.00	16.00	PI2_\$CLB	16.00	PI2		1.00	478.200	478.20
ROUND SS 1 304 (R) RSS-1 5747 3 X 12' R/L STOCK	96.12	36.00	PI_\$CLB	36.00	PI		3.00	151.853	455.56
ROUND SS 3/8 304 (R) RSS-38 5768 1 X 12' R/L STOCK	4.51	12.00	PI_\$CLB	12.00	PI		1.00	15.070	15.07
FLAT 1 1/4 X 3 * F-1143 2133 1 X 10' STOCK SAW CUT SCIE 1	127.50	10.00	PI_\$CLB	10.00	PI		1.00	132.340	132.34
ROUND 4140 HEAT TREAT 3/8 NS R4140-38H 9446 1 X 12' 7-10 DAYS	4.51	12.00	PI_\$CLB	12.00	UN_\$UN	31.96			383.52

Date :

Next Page...



ACIER OUELLETTE INC.

935, Boul. du H vre
Salaberry de Valleyfield (Qu bec) J6S 5L1
T l.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0144781

Billed to

DART AEROSPACE LTD
1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Att : PATRICK LUSSIER T l.: (613) 632-5200 X 730

Customer N 

CLI0001056

Date

2018/11/06

Revision N 

0

Prices valid until

2018/11/13

Your Order N 

Processed by

Josianne Bourdon

Salesman

DENIS

Carrier

OUELLE SDV

Credit Terms

Net 30 Days

Page

3

Product N� and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
ROUND 4140 HEAT TREAT 7/8 (R) R4140-78H 4997 1 X 20' R/L STOCK	40.90	20.00	PI_\$CLB	20.00	PI		1.00	84.230	84.23
ROUND 4140 ANNEALED 4 1/2 (R) R4140-412A 4957 1 X 5' DC STOCK	277.95	5.00	PI_\$CLB	5.00	PI		5.00	79.466	397.33
ROUND 4140 HEAT TREAT 9 NS R4140-9H 9642 6 X 4 1/2" 7-10 DAYS <i>J-F-S check</i>	486.68	2.25	PI_\$CLB	2.25	UN_\$UN		6.00	271.726	1 630.36
ROUND STRESSPROOF 4 (R) RST-4 5820 1 X 10' STOCK SAW CUT SCIE 1	427.20	10.00	PI_\$CLB	10.00	PI		1.00	548.060	548.06
ROUND STRESSPROOF 5 RANDOM NS RST-5-V 9054 1 X 4' 7-10 DAYS	267.00	4.00	PI_\$CLB	4.00	UN_\$UN		1.00	1 588.650	1 588.65
PLAT 2.0 X 4.0 4140 N 1 X 8' 7-10 DAYS	0.00	1.00	UN	1.00	UN		1.00	785.000	785.00
PLAT 1.5 X 2.0 4140 N 1 X 8' 7-10 DAYS	0.00	1.00	UN	1.00	UN		1.00	385.000	385.00
MECH TUBE 5.25 X .375W A-513 N 1 X 8' 3-5 DAYS	0.00	1.00	UN	1.00	UN		1.00	830.000	830.00
PLAT 3/8 X 1/2 0-1 N 2 X 3' 3-5 DAYS	0.00	2.00	UN	2.00	UN		2.00	63.250	126.50

Date :

Next Page...



ACIER OUELLETTE INC.

935, Boul. du H vre
Salaberry de Valleyfield (Qu bec) J6S 5L1
T l.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0144781

Billed to

DART AEROSPACE LTD
1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Att : PATRICK LUSSIER T l.: (613) 632-5200 X 730

Customer N  CLI0001056
Date 2018/11/06
Revision N  0
Prices valid until 2018/11/13
Your Order N 
Processed by Josianne Bourdon
Salesman DENIS
Carrier OUELLE SDV
Credit Terms Net 30 Days
Page 4

Product N� and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
ROND 3/8 0-1 N 2 X 3' 3-5 DAYS	0.00	2.00	UN	2.00	UN		2.00	14.600	29.20
SHEET SS 11G SS304-2B (4 X 8) FESS-11G483042B 3402 1 X 4' X 8' STOCK	168.00	32.00	PI2_\$CLB	1.00	UN		1.00	497.200	497.20
PALETTE PALETTE 7573	0.00	1.00	UN_\$UN	1.00	UN_\$UN		1.00	40.000	40.00
FUEL CHARGE FRAIS_ENERGETIQUE NOTE : ATTENTION: MILL TEST REQUIS			\$						3.95

Total Weight (Lbs) 2 659.41

Important

This offer is based on the availability, the price of material can change without notice in function of the evolution of the current market prices and international importation fees.
This offer is subject to credit approval.

Approved and Accepted by :

Date : **Total (\$CAD)** 16 467.61

Sub-total 14 573.11
TVH-13   1894.50

Chantal Lavoie

From: Chantal Lavoie
Sent: Tuesday, November 06, 2018 1:35 PM
To: 'Denis Quenneville'
Subject: quote

Good afternoon Denis,
Please advise price on delivery on mat'l.

~~6061-t6 bar 1.250" x 4.5" x 12 ft~~

~~6061-t6 bar 6" x 2" x 12 ft~~

~~6061-t6 bar 1.750" x 1.750" x 12 ft~~

~~6061-t6 bar 0.375" x 1" x 12 ft~~

~~6061-t6 bar 0.750" x 0.125" x 100 ft~~

~~6061-t6 bar 0.750" x 6" x 24 ft~~

~~6061-t6 bar 1" x 1" x 24 ft~~

~~6061-t6 bar 2" x 1.250" x 36 ft~~

~~6061-t6 round bar 1" x 24 ft~~

~~6061-t6 round bar 1.250" x 24 ft~~

~~6061-t6 round bar 0.500" x 12 ft~~

~~6061-t6 round bar 1.875" x 12 ft~~

~~6061-t6 round bar 2.750" x 12 ft~~

~~6061-t6 sheet 0.500" x 1 pcs of 4 ft x 4 ft~~

~~304 round bar 1" x 36 ft~~

~~304 round bar 0.375" x 12 ft~~

Hrs bar 1.250" x 2.5" x 8 ft

~~4140 qt round bar 0.375" x 12 ft~~

~~4140 qt round bar 0.875" x 12 ft~~

~~4140 round bar 4.5" x 3 ft~~

~~4140 qt round bar 9" x cut to size 4.50" x 6 pcs~~

~~1144 round bar 4" x 6 ft~~

~~1144 round bar 5" x 4 ft~~

~~4140 bar 2" x 4" x 8 ft~~

~~4140 bar 1.5" x 2" x 8 ft~~

~~A513 round tubing 5.250" x 0.375" x 12 ft~~

~~O1 bar 0.375" x 0.500" x 6 ft~~

~~O1 round bar 0.375" x 6 ft~~

~~304 sheet 11ga x 32 sf~~

Thanks
Chantal

Chantal Lavoie
Purchasing Coordinator

DART AEROSPACE
T 1 613 632-5200
F 1 613 632-1053
E clavoie@dartaero.com
1 800 556- 4166
www.dartaerospace.com





ACTIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

CO00120092

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

1 wrap 4" + stressproof

Shipped to

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Att: LUSSIER Tél.: (613) 632-5200 X 730

Instruction F-M

Delivery Route 5

Customer N° CLI0001056

Date 2018/11/09

Delivery date 2018/11/19

Your order N° 041674

Processed by Josianne Bourdon

Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Product Description	Weight	Qty	UM	PCS NB				Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C	OUT
1 FLAT ALU 1 1/4 X 4 1/2 6061-T6 NS FAL-114412 9693 1 X 12' HEAT 05281804 A AC21531-THY-14/11	79.38	12.00	PL \$CLB		1x12'						
2 SQUARE ALU 1 3/4 6061-T6 RANDOM NS CAL-134-V 8670 1 X 12' HEAT 894382 A AC21549-RY-14/11	43.18	12.00	PL \$CLB		1x12'						
3 ROUND ALU 1 7/8 6061-T6 NS RAL-178 12192 1 X 12' Heat 200227259 A AC21531-THY-14/11	38.92	12.00	PL \$CLB		1x12'						
4 ROUND ALU 2 3/4 6061-T6 * RAL-234 5148 1 X 20' HEAT SXB150109 A TRANSIT ST-JEROME LE 14/11	139.40	20.00	PL \$CLB		1x20'						
5 ROUND STRESSPROOF 4 (R) RST-4 5820 1 X 10' HEAT A140456 A TRANSIT ST-JEROME LE 14/11	427.20	10.00	PL \$CLB		1x10'						
6 TUBE MEC 5.250 OD X .375 NS TME-5250375 12191 1 X 12' HEAT 0110119 A AC21532-JG-21/11	234.24	12.00	PL \$PI		1x12'						not delivered
SAW CUT		1.00	UN								



CO00120092

Product Description	Qty	Weight	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
7 FLAT GRD STOCK 01 3/8 X 1/2 NS FO1-3812 2 X 3' HEAT AC21534-FU-14/11	3.83	6.00	PI								
8 ROUND 01 - 3/8 NS RO1-38 2 X 3' HEAT AC21534-FU-14/11	2.26	6.00	PI_\$CLB								

Note: ATTENTION: MILL TEST REQUIS

Conditions :

Total Weight (Lbs): 968.41

NIR : R-109516-6

All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and its warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to 25% restocking charge.

Prepared By :	Verified By :	Delivered By :	Time
		SE	

Customer's Signature

[Signature]

Date

Y M D
18 11 23



ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Cap

CO00120175

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Instruction F-M

Att : LUSSIER Tél.: (613) 632-5200 X 730

Delivery Route 5

Customer N° CLI0001056
Date 2018/11/12
Delivery date 2018/11/26
Your order N° 041674
Processed by Josianne Bourdon
Salesman
Carrier OUELLETTE VALLEYFIELD
Credit Terme Net 30 Days

Product Description	Weight	Qty	UM	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
1 ROUND 4140 HEAT TREAT 3/8 NS R4140-38H 9446 1 X 12' HEAT AC21548-CAS-22/11 Heat: D1537 M	4.51	12.00	PI2 \$CLB							
2 ROUND 4140 HEAT TREAT 9 NS R4140-9H 9642 6 X 4 1/2" HEAT AC21547-FU-21/11 Heat: 18121 M	486.68	2.25	PI2 \$CLB							
3 PLATE 4140 HEAT TREAT 2 NS P4140-2H 9072 1 X 4" X 96" HEAT AC21547-FU-21/11 Heat: 300536 M	218.12	2.67	PI2 \$CLB							
4 PLATE 4140 HEAT TREAT 1 1/2 NS P4140-112H 8283 1 X 8' X 2" HEAT AC21547-FU-21/11 Heat: 604714 M	2.17	1.33	PI2 \$CLB							

Note : ATTENTION: MILL TEST REQUIS



DELIVERY - CLIENT

CO00120175

Product Description

Qty

Weight

UM

Total Weight (Lbs) : 711.48

PCS NB

CMD

EXP

B/O

IN

I

S

C

Internal Use Only

OUT

Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

NIR : R-109516-6

Prepared By :

Verified By :

Delivered By :

Time

SB

Y 18 M 11 D 23

Customer's Signature

Date

120012

Don't

2/531N



Service Center Metals
5850 Quality Way
Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS
FOR EXTRUDED PRODUCTS

Can Do.



OUR ORDER NUMBER	ITEM
953979	7

BILL TO

SHIP TO

MANIFEST NUMBER 371534
 CUSTOMER PO 5400404994
 CUSTOMER PART NUMBER ALREC00162
 Quantity Certified 2,404 lbs 30 pcs
 DIE NUMBER MRB1771
 ALLOY / TEMPER 6061-T6511
 DESCRIPTION MQRB 1.250x4.500
 DATE OF SHIPMENT 6/26/2018
 SALESPERSON D. Schroeder (Canada)
 CERTIFICATION ASTM-B221-14 StencilCont
 SPECIFICATION SAE AMS-QQA-200/8A Stabilized
 RoHS 2011/65/EU Compliant

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

This product is RoHS-2, REACH, and DFARS compliant.

SCM is ISO 9001-2015 certified

Mechanical Properties

Tests Lot No.

Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
6/25/18	min 51.50 max 51.50	min 47.10 max 47.10	min 16.70 max 16.70

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	AL	Each	Total	Others	Melt Source:
05281804	201811618	6061	0.74	0.37	0.35	0.10	0.86	0.08	0.07	0.03	97.40	0.05	0.15		United States of America

SCM products are melted and extruded in the USA

Calvin J. Wiggins

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 6/26/2018

Not 05281804

Rev 3/14/2018

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL (6061) T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER:

M6061T6B | T.TTT | X | WW.WWW/
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-05-03
MAD

B		REMOVE DD-A-25011 OPTION REFORMAT NOT 1 S. ADD ASTM B211/B211.2N D7.1		CP	09.07.13
A		NEW ISSUE		DS	01.06.08
REV		DESCRIPTION		BY	DATE
DESIGN	DS	DART AEROSPACE LTD			
DRAWN		HAWKESBURY ONTARIO, CANADA			
CHECKED		DRAWING NO		REV B	
MFG APPR		M6061T6B		SHEET 1 OF 1	
APPROVED		TITLE		SCALE	
DE APPR		6061-T6 BAR		NTS	
DATE	09.07.13	COPYRIGHT © 2001 BY DART AEROSPACE LTD			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 B1252x4.500

PO / BATCH NO.: P0041674 S131147

DATE: 18/11/23

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 1.250"

QUANTITY RECEIVED: 12lt

THICKNESS RECEIVED: 1.250"

QUANTITY INSPECTED: 12ft

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	ASTM B221
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	HT-05281804
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 61</u> DATE: <u>18/11/23</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

120092

Dart

21549N

SIGNATURE
ALUMINUM
CANADA INC.

CERTIFICATE OF COMPLIANCE

SIGNATURE ALUMINUM CANADA

1850 CLEMENTS RD
PICKERING, ON L1W 3R8

Cert Date	Cert No.	Sales Order	Page
02/10/2018	5465480	130941	1
Cust PO	B/L No	Lot	Date
4500861760	035845	894382	02/12/18

Sold To		Ship To	
Item No	Part No	Item Description	Cust Part
001	C-011508-9	12 MILL 6061 T6511	
Gross Weight	1,380 LBS		
Net Qty	1,362 LBS 32 PCS 1 PKGS		
Specification	Die Desc		
ASTM B221-13			

Mechanical Tests:

Tensile	Yield			
MPA / KSI	MPA / KSI	% Elongation	Conductivity	HRE
313.8 / 45.5	287.6 / 41.7	17.4	N/A	94

Chemical Analysis:

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	V	Zr
0.63	0.26	0.22	0.05	0.90	0.07	0.03	0.01	0.01	0.00

This Material is Made in Canada

This Material is RoHS Compliant

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Gooder
Quality Manager
Signature Aluminum Canada Inc

Heat: 894382

ISO 9001/TS16949 Registered Company

Visit us at www.signaturealuminum.com

Rev A

CERTIFICATION DU MATÉRIEL

CLIENT:
SALABERRY-DE-VALLEYFIELD

ACIER OUELLETTE INC DIV.DE

935 BOUL DU HAVRE
SALABERRY-DE-VALLEYFIELD, QUEBEC
QC J6S 5L1

NUMÉRO DE COMMANDE: 15086026 000010
COMMANDE DU CLIENT: ac00021549 10
NUMÉRO DE PIÈCES: 8670
NUMÉRO DE LIVRAISON: 803980218 000010

NUMÉRO D'ARTICLE: 160001146
DESCRIPTION INVENTAIRE: SQ EXT 6061 T6511 1.75 X 144

DESCRIPTION ARTICLE FINIS: ALUM Barre SQ EXT 6061 T6511
1.75po X 144po

NUMERO (S) DE COULÉE **BRAME / BOBINE / TIN (le cas échéant)**

894382 411066


CERTIFICATION

Un sondage de nos sources matérielles a indiqué que ni le mercure ni des substances radioactives ne sont introduits dans leurs produits ni ne sont utilisés dans aucun de leurs procédés. Alors que nous ne faisons aucun test indépendant pour le mercure ou la radiation, il n'y a rien dans le système d'écoulement qui pourrait entraîner la contamination de l'un ou l'autre type.

Ce document certifie que le matériel décrit ci-dessus a été expédié conformément à votre commande. Le producteur du matériel a certifié à qu'il a été produit conformément aux spécifications suivantes:

ASTM B221

11/14/2018


Thomas Endres
Vice-président - Approvisionnement

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL (6061-T6/T651/T6510/T651/T62 ALUMINUM BAR

SPECIFICATION:
 QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
 OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
 OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B | T TTT | X | WWW WWW
 THICK | WIDTH

WHERE "T TTT" = THICKNESS IN INCHES
 "WWW WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
 2009-09-03

B		REMOVE QQ-A-200/1 (OPTION REFORMAT NOTES, A1-D)		CP	09/07/13
A		NEW ISSUE		DS	01/06/08
REV	DESCRIPTION		BY	DATE	
DESIGN	DS	DART AEROSPACE LTD			
CHECKED	DS	HAWKESBURY, ONTARIO, CANADA			
MFG APPR	DS	DRAWING NO			
APPROVED	DS	M6061T6B			
DE APPR	DS	TITLE			
DATE	09/07/13	6061-T6 BAR			
		SHEET 1 OF 1		SCALE	
		REV B		NIS	
COPYRIGHT © 2003 BY DART AEROSPACE LTD.					

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 B1.750 x 1.750

PO / BATCH NO.: P0041674/S131148

DATE: 18/11/23

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 1.750"

QUANTITY RECEIVED: 12ft

THICKNESS RECEIVED: 1.750"

QUANTITY INSPECTED: 12ft

SHEET SIZE ORDERED: -

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	N	
CORROSION	Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y	N	ASTM B221
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	N	HT: 894382
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> DATE: <u>18/11/23</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

120092

Dart

21531N

2

KAISER

ALUMINUM

FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER: 5400407322-6		CUSTOMER PART NUMBER: ALRD00068		PRODUCT DESCRIPTION: KAISERSELECT PRECISION ROD 1.875+/- .005	
KAISER ORDER NUMBER: 6056577	LINE ITEM: 006	SHIP DATE: 06/25/2018	KAISER LOT NUMBER: Z00227259	ALLOY: 6061	TEMPER: T6511B
WEIGHT SHIPPED: 1013.000 LB	QUANTITY: 26.000 PCS	B/L NUMBER: 623233	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 12.000 FT
SHIP TO:			SOLD TO:		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00227259	0001	0001	55.2	52.1	14.7	RE 93	N/A	N/A
Z00227259	0001	0002	51.3	47.2	16.1	RE 95	N/A	N/A
Z00227259	0001	0003	51.0	47.2	18.6	RE 96	N/A	N/A
Z00227259	0001	0004	55.5	52.2	14.5	RE 93	N/A	N/A
Z00227259	0001	0005	52.0	48.4	15.7	RE 96	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
108678	.78	.27	.31	.10	.95	.09	.05	.02	.00	.00	.00	.01	.04

Applicable Requirements:

PER ASTM-B221-14, STENCILED ASME-SB221 2009 SECT II PER AMS-QQ-A-200/8A UNS# A96061
MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL
PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

Plant Serial: 00339773
Kaiser Order Number: 6056577
Line Item: 006

Z 00 227259

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Aimee L. Macnowski, Quality & Technology Manager

Aimee L. Macnowski

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL M6061-T6/T651/T6511/T62 ALUMINUM ROUND BAR
 SPECIFICATION QQ-A-225/B OR AMS-QQ-A-225/B (OR AMS 4117/4128/4115/4116)
 OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4180)
 OR ASTM B211 OR ASTM B221

PART NUMBER M6061T6R1D DDD | DIA |
 WHERE "D.DDD" = DIAMETER IN INCHES
 EG. 5/8" ROUND BAR = M6061T6R0 625

RELEASED
 R 2009-09-09
 MP

REV	DESIGN	DATE	BY	DATE
A	DRAWN	09.07.13	DS	01.06.05
	CHECKED			
	MEG APPR			
	APPROVED			
	DE APPR			
	DATE	09.07.13		

REF 3RMA "ZMG ADD B211 & B221 SPEC (IN DR-1)	DS	09.07.13
REF PAR C9-020A	DS	01.06.05
NEW IS	DS	01.06.05
DESCRIPTION	BY	DATE
DART AEROSPACE LTD		
DRAWING NO		
M6061T6R		
FILE		
6061-T6 ROUND BAR		
REV. B		
SHEET 1 OF 1		
SCALE		
NTS		
COPYRIGHT © 2004 BY DART AEROSPACE LTD		

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 R1.875
DATE: 18/11/23

PO / BATCH NO.: P0041674/S131149

MATERIAL CERT REC'D: Yes
QUANTITY RECEIVED: 12ft
QUANTITY INSPECTED: 12ft
QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.875"
THICKNESS RECEIVED: 1.875"
SHEET SIZE ORDERED: —
SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y N	<u>ASTM B201</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y N	<u>HT: 200227259</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>61</u>		SIGNED OFF BY: _____	
DATE: <u>18/11/23</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



CÔNG TY TNHH DẬP KÉP
HỢP KIM LOẠI VIỆT NAM
CÔNG NGHỆ DẬP KÉP
CƠ SỞ SẢN XUẤT

GLOBAL VIETNAM ALUMINIUM COMPANY LIMITED

Address: My Xuan B1-Conac industrial zone, My Xuan town, Tan Thanh district,
Ba Ria-Vung Tau province, Viet Nam

Tel: +84(0)643924954

Fax: +84(0)643924953

MILL TEST CERTIFICATE

Date: June 25th 2015

PO number: 15-P-060

Shipping Ref No.: 15-0421

L/C No.: DC HMN330723

Date of issue: 26 June, 2015

Item Code: 1043702

Die Number: D00020

Alloy & Tempers: 6061-T6

Production Description: Round Bar 2.75" x 20'

Length (inch): 240

Quantity (pieces): 7

Bundle number: 15-P-060-016

Heat Number: SXB150109

Lot Number: JY150570F

Date: 28-05-2015

Applicable Specifications: ASTM B221 STANDARDS

CHEMICAL ANALYSIS: %

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other		Al	Remark:
								EACH	TOTAL		
0.062	0.132	0.245	0.025	0.906	0.045	0.009	0.020	<0.05	<0.15	98.021	25/05/2015

MECHANICAL ANALYSIS:

Ult. Strength (ksi)	Yield Strength (ksi)	Elongation % LN 2"	Remark:
53.0	48.4	14.5	25/05/2015

All profiles, each profile with each MTC, showing material shipped match aluminium alloy as per standard, with chemical analysis and mechanical analysis to match aluminium alloy standard.

We hereby certify that the item listed have been checked and tested in accordance with the specifications noted and have been found to meet all the applicable requirements. Certifications are kept on file for 36 months from the date of purchase and are available for review upon request, referring to ASTM and the PO number.

Quality Manager

Heat: SXB 150109

RA-234

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL 6061-T6 / 6061-T6510 / 6061-T652 ALUMINUM ROUND BAR
 SPECIFICATION QQ-A-225/B OR AMS-QQ-A-225/B (OR AMS 4117/4128/4115/4116)
 OR QQ-A-200/B OR AMS-QQ-A-200/B (OR AMS 4160)
 OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6R(D DDQ) DIA.

WHERE "D.DDD" = DIAMETER IN INCHES
 EG. 5/8" ROUND BAR = M6061T6R0 625

RELEASED
 R 2009-09-09
MP

B		REFORMAT (XMG ADD 82118 B221 SPEC (IN DB-1)	CP	09.07.15
A		REV PAR 08 C30A	DS	01.06.08
REV		DESCRIPTION	BY	DATE
DESIGN	DART AEROSPACE LTD		REV B	
DRAWN	HYAKESBURY, ONTARIO CANADA		SHEET 1 OF 1	
CHECKED	DRAWING NO.		SCALE	
MFG. APPR.	M6061T6R		NTS	
APPROVED	TITLE		DATE	
DE APPR	6061-T6 ROUND BAR		09.07.13	
COPYRIGHT © 2001 BY DART AEROSPACE LTD				

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176R2.750
 DATE: 18/11/23

PO / BATCH NO.: P0041674/S131150

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 20L
 QUANTITY INSPECTED: 20L
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.750"
 THICKNESS RECEIVED: 2.750"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	ASTM B221
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	MT: 5XB150109
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u> 61 DATE: <u>18/11/23</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

120175

Dart

21548N



2342 Basso Reno (LO) - Via Giuseppe Roda 1 - 23030
Tel. +39031876111 - Fax +39031876312
Internet: www.rodacciai.com e-mail: info@rodacciai.com

Azienda con sistema di gestione certificato da ISO
secondo UNI EN ISO 9001:2008

The Company's Quality Management System
is certified by ISO according to UNI EN ISO 9001:2008

2

CERTIFICATO DI CONTROLLO Inspection Certif N. 080335 Date 31/05/2018

Secondo According to EN 10204:2004 3.1

DESTINATARIO - Cargo-Receiver

CLIENTE - Customer

RODA SPECIALTY STEEL, INC.

RODA SPECIALTY STEEL, INC.

200 LEXINGTON DR
60089 BUFFALO GROVE ILLINOIS

200 LEXINGTON DRIVE
60089 BUFFALO GROVE IL.

ORDINE - Order

N. 902061

Date 30/10/2017

D.d.T. - Delivery note

N. 06797/13 Date 6/06/2018

Weight

Lb

4894

Ord. Nr.

2017/A/50448

Bars Length 12 - 12 ft.

QUALITA' - Grade

STANDARD ASTM A193/A193M 16

Grade B7

STANDARD ASME SA A193/A193M

Grade B7

Mark RODACCIAI

RK1 / B7

Melted in :

COLATA - Heat

D1537

ORI MARTIN S.P.A.

PROFILO - Shape

ROUND

Italy

I

DIMENSIONE - Size

3/8"

TRATTAMENTO - Heat Treatment

QUENCHED AND TEMPERED

RECEUZIONE - Form of delivery

COLD DRAWN

ANALISI CHIMICA DI COLATA - Cast analysis % by mass

C	Mn	Si	S	P	Cr	Ni	Mo	Al	Cu
0,430	0,780	0,200	0,0240	0,010	1,070	0,090	0,160	0,023	0,100

B
0,0001

CARATTERISTICHE MECCANICHE ALLO STATO DI FORNITURA

Mechanical properties of the delivered material

		Tested	Min	Max
Tensile Strength	Rm PSI	141162,3	130000	
Yield Strength	Rp(0,2) PSI	117021,4	110000	
Elongation	A 4 (%)	26,3	16	
Hardness	HBW	289,0		321
Reduction of area	Z (%)	55,7	50	

Heat D 1537



The Company's Quality Management System
is certified by IQC according to UNI EN ISO 9001:2008

N. 080335 Date 31/05/2018

Material conforming to the following European directives/regulations:
78/760/EEC and following amendments
2000/53/EC 2002/95/EC 2005/61/EC 2008/33/EC and 2008/112/EC
2002/95/EC (RoHS) (EU)
2006/117 Radiological Contamination
Recast EC 1997/2006 - 1276/2006 - EU 604(2012) enclosed IRLI
20 June 2012 - EU 998/2012 Enclosed IRLI 13 June 2012
and IEL SHW are applied on 8/8/2018
Regulation 168 vehicles on 8/8/2018
Korea Directive: 2002/55/EC - 2011/65/EU and following amendments
Material conforming to German Federal Act related to construct materials.

Alfred

RES ONLY

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 ROUND BAR
MINIMUM ROCKWELL C = 28 Rc
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626, ASTM A434-BC/BD, ASTM A193-B7

PART NUMBER: MT-4140-R-[D.DDD]
WHERE "D.DDD" = DIAMETER IN INCHES
EX. 4" ROUND BAR = MT-4140-R-4.000

NOTE: ALSO COMMONLY KNOWN AS AISI 4140 HT/QT

B	MIN/MAX Rc UPDATED, ADDED NOTE FOR HT/QT, ADDED ASTM A434-BC/BD, ASTM A193-B7 AND MIL-S-5626		18-524	KK
A	NEW ISSUE		17-790	VM
REV.	DESCRIPTION		ECN #	BY
DESIGN	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWN	KPT			
CHECKED	VM 01/24/2018	TOOL PART #	REV. B	
MFG. APPR.	FK	MT-4140-R	SHEET 1 OF 1	
APPROVED	<i>[Signature]</i>	TITLE	SCALE	
DATE	11/27/2018	AISI 4140 ROUND BAR	NTS	
<small>COPYRIGHT © 2018 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>				

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140 QT-RD.375

PO / BATCH NO.: P0041674/S131151

DATE: 18/11/27

MATERIAL CERT REC'D: 1/2

THICKNESS ORDERED: 0.375"

QUANTITY RECEIVED: 124

THICKNESS RECEIVED: 0.375"

QUANTITY INSPECTED: 124

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	<u>ASTM A143-B7</u>
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	<u>HT.D1537</u>
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 61</u> DATE: <u>18/11/27</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5320

Rest-4

Eaton Steel Bar Company Inspection Certificate 1606341

EN 10204:2004-3.1

Customer	BOL	Ship Date	Customer PO	Item	Customer Item	Item Description
		22-Nov-2016	B97156	1009791 rev 002		4 CD RD 1145R03 12H SBO SRA S2 CGP RT

All bundles listed below were produced using steel from Heat A140456 (issued by STEEL DYNAMICS INC and were completed from Eaton Steel Job 763009.

Chemistry	Description	Value	Units
C	Carbon	0.40000	PMGT
Mn	Manganese	1.42000	PMGT
P	Phosphorus	0.01100	PMGT
S	Sulfur	0.29000	PMGT
Si	Silicon	0.25000	PMGT
Ni	Nickel	0.06000	PMGT
Cr	Chromium	0.15000	PMGT
Mo	Molybdenum	0.01000	PMGT
Al	Aluminum	0.00100	PMGT
Cu	Copper	0.15000	PMGT
V	Vanadium	0.00500	PMGT
Co	Columbium	0.00200	PMGT
N	Nitrogen	0.01000	PMGT
DI	Ideal Diameter	2.45000	IN
Grain Size	Description	Value	Units
Diameter		3.9950 - 4.0000	IN
Length		0 - 2	IN
CF STRAIGHT	Cold Finished Deflection in 10ft.	140.0000 - 148.0000	IN
Mechanical	Description	Value	Units
TENSILE PSI	Tensile Strength in PSI Units	118400	PSI
YIELD PSI	Yield Strength in PSI Units	108000	PSI
ELONGATION	Percent Elongation	11.00	PCT
REDUCTION	Percent Reduction in Area	22.0	PCT
BRINELL SURF	Brinell Surface	245.0	BRN
Cold Working	Description	Value	Units
SEAM DEPTH	Allowable Seam Depth	0.0000 - 0.0960	IN
ASIM Standard	Description	Value	Units
A108-13	Steel Bars, CF Carbon & Alloy	CONFORMS	
A311 Class 5	Heavy Draft CD SRA	CONFORMS	
Tag Number	Qty Units	Length	
260-142698	3763 LBS	12ft6in	


Bundled tags with Eaton Steel identifiers reference the steel grade, heat, purchase order number, part number, product description and weight. Tosted and certified in accordance with Eaton Steel's Quality Manual QM-00001 / Rev 3 / 2/26/13.

We hereby certify the above to be in conformance, and a true copy of data represented in company records. This steel was not subject to weld repair or exposed to mercury while in the possession of Eaton Steel.

Created on 22-Nov-2016
Thomas Snabes, Corporate Metallurgist

10221 Capital Avenue, Oak Park, MI 48237 USA
http://www.eatonsteel.com
Tel: 248-398-3434
Fax: 248-398-1434

Heat A140456



03 Mechanical Testing Results - ASTM E 8-11

Certificate Number: 2087.01

Testing Laboratory

Sample ID: 14-TML-1582-01

Comments:

WO 763009 Part 1009791 Size 4.00 CD RD Grade 1144 Heat A140456

The following results are to ASTM E 8-11.

0.2% Offset Yield Test Report

0.2 % Offset Yield psi	108000
Ultimate Tensile psi	118400
Elongation Manual %	11
Reduction Area %	22
Hardness Brinell	-

When Metallurgy's uncertainty values for this test are maintained on file and are available upon request.

Entered by: Steve Avery

Entered Date: 08/05/2014

Approved by: Tom Snaboe

Approved Date: 08/05/2014

09 Hardness Results - ASTM E 10-01

Certificate Number: 2087.01 (3,000 lb.)
Testing Laboratory



Sample ID: 14-TML-1552-01

Comments:

WO 763009 Part 1009791 Size 4.00 CD RD Grade 1144 Heat A140456

The following results are in the HBW scale.

1	245
2	.

Mean	245
Std Dev	-
Lowest	-
Highest	-
Range	-
Total Tests	1
Rejected	0

Titan Metallurgy's uncertainty values for this test are maintained on file and are available upon request.
Entered by: Steve Avery
Entered Date: 06/09/2014
Approved by: Tom Snabes
Approved Date: 06/09/2014

Report # 14-TML-1552

End of Report

Lab Services Report

10221 CAPITAL AVENUE
OAK PARK MI 48237
(248) 543-3578 telephone
(248) 398-1434 facsimile

Bill To:
00000
Eaton Steel Corporation
10221 Capital Avenue
Oak Park MI 48237
Attn:
Andrew Wurts
248-398-3434
awurts@titanmetallurgy.com

Ship To:
Eaton Steel Corporation
10221 Capital Avenue
Oak Park MI 48237

Report Date:
06/06/2014

This report contains results for the indicated services performed on the following sample(s):

Customer Sample #	Report Section	Service #
Titan Sample #		
WO 763009 Part 1009791	Size 4.00 CD RD Grade 1144 Heat A140456	
14-TML-1582-01 1	03 - Mechanical Testing - ASTM E 8-01 (1 Test)	
WO 763009 Part 1009791	Size 4.00 CD RD Grade 1144 Heat A140456	
14-TML-1582-01 2	08 - Hardness - ASTM E 10-01 (Brinell)	

Any services within a section marked with * are not part of Titan Metallurgy's current A2LA accreditation.


Thomas J. Snabes, Metallurgist

All testing performed by Titan Metallurgy was done at ambient (room) temperature.
The results in this laboratory report relate only to the items tested.

For questions or comments contact us at 248-543-3578 or QandA@titanmetallurgy.com.

Report # 14-TML-1582 Cover Page

Report # 14-TML-1582 Section 1 of 2 sections

8 7 6 5 4 3 2 1

REV	DESCRIPTION	DATE	BY	APPROVED
A	NEW ISSUE	17 08 09	VM	VM

SPECIFICATION CONTROL DRAWING

2016.12

PURCHASE MATERIAL : AISI 1144 STRESSPROOF STEEL ROUND BAR
SPECIFICATION: ASTM A311 or UNS G11440
PART NUMBER: MT-1144-R [D.DDD]
WHERE "D.DDD" = DIAMETER IN INCHES
EG. 5/8" ROUND BAR = MT-1144-R0.625

DART AEROSPACE	
TITLE AISI 1144 STRESSPROOF STEEL ROUND BAR	
DRAWING NO	REV
DESIGN NO	A
DESIGNER	DATE 17/08/2017
DRAWN BY	DATE 17/08/2017
CHECKED	SAC 08/01/2017
ENG. APPROV.	DATE 08/01/2017
QA APPROV.	DATE 08/01/2017
APPROVED	DATE 08/01/2017
DATE 17/08/2017 SCALE NTS WEIGHT 0.0 LBS SHEET 1 OF 1	
COPYRIGHT © 2013 BY DART AEROSPACE LTD	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-1144-R4.00
 DATE: 18/11/23

PO / BATCH NO.: P0041674/S130152

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 10ft
 QUANTITY INSPECTED: 10ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 4.000"
 THICKNESS RECEIVED: 4.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	N	
CORROSION	Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y	N	
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	N	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u> 61 9-89 DATE: <u>18/11/23</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



ACIER OUELLETTE INC.
935, Boul. du Hâvre
Salaberry de Valleyfield (Q. Jé) J6S 5L1
Tél.: 416-377-4248-Mtl: 514-336-4243 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

CO00120218

Copy

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7
Att: LUSSIER Tél.: (613) 632-5200 X 730
Delivery Route 5

Customer N°

CLI0001056
Date 2018/11/12
Delivery date 2018/11/26
Your order N° 041674
Processed by Josianne Bourdon
Salesman
Carrier OUELLETTE VALLEYFIELD
Credit Terme Net 30 Days

Instruction

F-M

Product Description	Weight	Qty	UM	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C
1 ROUND STRESSPROOF 5 RANDOM NS RST-5-V 9054 1 X 4' HEAT (A180131) AC21560-JG-22/11	267.00	4.00	PI_\$CLB		(1x4)				

Note : ATTENTION: MILL TEST REQUIS

Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Total Weight (Lbs) : 267.00

NIR : R-109516-6

Prepared By :

Verified By :

Delivered By :

Time

Customer's Signature

Date

120218
CERTIFICATE OF TEST
CERTIFICAT D'ESSAIS

21560N

Page 01 of 02

Certification Date
22-NOV-2018

Dart
CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number
T386186

AC00021560
PART NUMBER/NUMÉRO DE PIÈCE
547381

SOLD TO: ACIER OUELLETTE INC. SHIP TO: ACIER OUELLETTE INC.
VENDU À: DIVISION SALABERRY DE VALLEYFIELD DIVISION SALABERRY DE VALLEYFIELD
935, BOUL. DU HAVRE 935, BOUL. DU HAVRE
SALABERRY-DE- VALLEYFIELD QC J6S 5L1 SALABERRY-DE- VALLEYFIE QC J6S

Description: STRESSPROOF* CF BAR ASTM A108

5 RD S/C 4.0" (48.0")

Line Total: 267.28 LB

HEAT: A180131

ITEM: 547381

Specifications:
ASTM A108 13

ASTM A29 16

ASTM A311 04

CHEMICAL ANALYSIS

C	MN	P	S	SI	NI	CR	MO
0.45	1.41	0.011	0.294	0.24	0.10	0.13	0.03
CU	AL	V	N	PB	B		
0.31	0.001	0.004	0.006	0.003	0.0017		

RCPT: R503328

COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR PSI	ULT TEN PSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	111613.0	126782.0	10.1	25.7	255

IDEAL DIAMETER : 2.58 IN

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

Joanne Despres

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date
22-NOV-2018

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

AC00021560

Invoice Number
T386186

PART NUMBER/NUMÉRO DE PIÈCE
547381

SOLD TO:	ACIER OUELLETTE INC.	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:	DIVISION SALABERRY DE VALLEYFIELD	EXPÉDIÉ À:	DIVISION SALABERRY DE VALLEYFIELD
	935, BOUL. DU HAVRE		935, BOUL. DU HAVRE
	SALABERRY-DE- VALLEYFIELD QC J6S 5L1		SALABERRY-DE- VALLEYFIE QC J6S

Description: STRESSPROOF« CF BAR ASTM A108
5 RD S/C 4'0" (48.0")

Line Total: 267.28 LB

HEAT: A180131 ITEM: 547381

STRAND CAST REDUCTION RATIO 6.7 TO 1
MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL

COMMENTS

ACCEPTED FOR 1E0368 PN 141-5849 MP PER JMD 10-22-18

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Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

AISI 1144 STRESSPROOF ST
ASTM A311 of UNS G11440

2017.09.12
OK

[illegible]

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7-1144-RS.000

PO / BATCH NO.: P00416741

DATE: 18/11/26

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 5.020"

QUANTITY RECEIVED: 44

THICKNESS RECEIVED: 5.020"

QUANTITY INSPECTED: 44

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<u>ASTM A311</u>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<u>MT: A1B0131</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u> N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> 9-89	SIGNED OFF BY: _____
DATE: <u>18/11/26</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

Chemical certification Certification chimique

21547N

Order Num / No. Commande AC-21547	Vendor / Fournisseur 46	Country of origin / Pay d'origine SLOVENIA	Date 08/31/17	Heat / coulée 300536	Material ID # / No. matériel
Grade / Nuance 4140 PLT	Conditions HEAT TREATED Q&T				
Shape / Forme FLAT	Size / Dimension 2.000	Specifications ASTM A829/A829M			

Chemical composition / Analyse chimique				
Carbon (C)		Silicon (Si)		Manganese (Mn)
Mini / maxi	0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	Phosphorus (P)
Actuel %	0.410	0.226	0.743	0.007
Sulphur (S)		Chromium (Cr)		Nickel (Ni)
Mini / maxi	0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	Molybdenum (Mo)
Actuel %	0.001	0.950	0.530	0.180
Cooper (Cu)		Vanadium (V)		Aluminum (Al)
Mini / maxi	0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	Tungsten (W)
Actuel %	0.183	0.032	0.032	0.000
Cobalt (Co)		Titanium (Ti)		
Mini / maxi	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel %	0.000	0.000	0.000	0.000
Mechanical properties / Propriétés Mécaniques				
Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC
0.000 PSI	0.000 PSI	0.00	0.00	305 BHN

Note:

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.


Prepared by: / Préparé par:

Heat 300536

A vertical number line with tick marks and labels 0, 1, 2, 3, 4, 5, 6, 7, 8.

SPECIFICATION: ASTM A829, AMS 6395

EX. 0.063" THICK SHEET = MT-4140-S-0.063
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

TITLE	AS14140 / 4142 STEEL SHEET OR PLATE		REV	A
	PART NO		MT-4140-S	
TOLER. REQ	(UNLESS OTHERWISE SPECIFIED) DIMENSIONS ARE IN INCHES DIMENSIONS ARE TO BE MAINTAINED			
	INITIALS AND DATE	FRACTIONS IN DECIMALS SURFACE ANGLE		
	DESIGNED BY	XX 31		
	DRAWN BY	XX 31		
	CHECKED BY	XX 31		
	MFG REVIEW BY	XX 31		
APPROVED BY	MT-024132018 SCALE: NTS		SHEET 01 OF 1	
THIS DRAWING IS THE PROPERTY OF THE COMPANY. IT IS TO BE KEPT IN THE COMPANY'S OFFICE. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.				

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-S-2.000x4.000
 DATE: 18/11/23

PO / BATCH NO.: P0041674/S131153

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 8ft
 QUANTITY INSPECTED: 8ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.000"
 THICKNESS RECEIVED: 2.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	ASTM A829
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	HT: 300536
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>9-8</u> DATE: <u>18/11/23</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

Chemical certification
Certification chimique

21547

Order Num / No. Commande AC-21547	Vendor / Fournisseur 46	Country of origin / Pay d'origine SLOVENIA	Date 07/15/18	Heat / coulée 304714	Material ID # / No. matériel
Grade / Nuance 4140 PLT	Conditions HEAT TREATED Q&T				
Shape / Forme FLAT	Size / Dimension 1.500	Specifications ASTM A829/A829M			

Chemical composition / Analyse chimique				
	Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi	0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel %	0.420	0.219	0.759	0.009
	Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi	0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel %	0.001	1.010	0.140	0.230
	Cooper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi	0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel %	0.165	0.039	0.021	0.000
	Cobalt (Co)	Titanium (Ti)		
Mini / maxi	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel %	0.000	0.000	0.000	0.000
Mechanical properties / Propriétés Mécaniques				
Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC
0.000 PSI	0.000 PSI	0.00	0.00	
				Surface Hd / Dureté
				300/312 BHN

Note:

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

Heat 304714


SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE
 MINIMUM ROCKWELL C = 28 Rc
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-(T.TTT) X (W.WWW)
 WHERE "T.TTT" = THICKNESS IN INCHES
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063
 EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO MT-4140-S	REV A
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE TO 3 PLACES FRACTIONS ARE TO 16 PLACES DIMENSIONS APPLY AFTER FINISHING	
DESIGNED BY: VAI 2/13/2018 DRAWN BY: VAI 02/13/2018 CHECKED BY: VAI 02/13/2018 APPROVED BY: VAI 02/13/2018	INITIALS AND DATE DESIGNED BY: VAI 2/13/2018 DRAWN BY: VAI 02/13/2018 CHECKED BY: VAI 02/13/2018 APPROVED BY: VAI 02/13/2018
TOLERANCES FRACTIONS ± 1/16 DECIMALS ± .01 ANGLES ± .5° SURF. FINISH UNLESS OTHERWISE SPECIFIED	
SCALE: NTS SHEET 1 OF 1	
COPYRIGHT © 2018 BY DART AEROSPACE LTD. ALL RIGHTS RESERVED. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE LTD.	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-S-1.500 x 2.000

PO / BATCH NO.: P0041674/S131154

DATE: 18/11/23

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 1.500"

QUANTITY RECEIVED: 8LH

THICKNESS RECEIVED: 1.500"

QUANTITY INSPECTED: 8LH

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y N	<u>ASTM A829</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y N	<u>LT: 304714</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DA 61</u> DATE: <u>18/11/23</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



ACIER OUELLETTE INC.

935, Boul. du H vre
Salaberry de Valleyfield (Qu bec) J6S 5L1
T l.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Copy

CO00122309

Billed to

DART AEROSPACE LTD

1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Att : LUSSIER T l.: (613) 632-5200 X 730

Instruction

F-M

Delivery Route 5

Customer N 
Date
Delivery date
Your order N 
Processed by
Salesman
Carrier
Credit Terme

CLI0001056
2018/11/26
2018/11/27
041674
Denis Quenneville
OUELLETTE VALLEYFIELD
Net 30 Days

Product Description	Weight	Qty	UM	PCS NB				Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C	OUT
1 TUBE MEC 5.250 OD X .375 NS TME-5250375 12191 1 X 12' AC 25132-JG HEAT: 0110119 AT	234.24	12.00	PI_\$PI								

Note : ATTENTION: MILL TEST REQUIS

Conditions :

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Total Weight (Lbs) : 234.24

NIR : R-109516-6

Prepared By :	Verified By :	Delivered By :	Date
			Y M D 18/11/27

Customer's Signature

120092
CERTIFICATE OF TEST
CERTIFICAT D'ESSAIS

21532N

Page 01 of 02

Certification Date
21-NOV-2018

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number
T386166

AC00021532
PART NUMBER/NUMÉRO DE PIÈCE
108425

SOLD TO: ACIER OUELLETTE INC. **SHIP TO:** ACIER OUELLETTE INC.
VENDU À: DIVISION SALABERRY DE VALLEYFIELD **EXPEDITION:** DIVISION SALABERRY DE VALLEYFIELD
935, BOUL. DU HAVRE 935, BOUL. DU HAVRE
SALABERRY-DE- VALLEYFIELD QC J6S 5L1 SALABERRY-DE- VALLEYFIE QC J6S

Description: 1026 DOM SRA A513/5
5.250 OD X 4.500 ID S/C 12'0" (-144.0") Line Total: 12 FT
HEAT: 0110119 ITEM: 108425

Specifications:
ASTM A513 TP 5 14
DIN 50049

EN 10204 TYPE 3.1B
ASTM A513 S5

ISO 10474
ASTM A370

CHEMICAL ANALYSIS

C	MN	P	S	SI	AL	CU	NI
0.23	0.66	0.008	0.006	0.013	0.027	0.04	0.01
CR	MO	V	CA				
0.04	0.01	0.00	0.00				

RCPT: R627562

COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR PSI	ULT TEN PSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS RB
PAR E-MAIL	77654.0	88942.0	23.48		87
	77654.0	88942.0	23.48		87
	77654.0	88942.0	23.48		87

GRAIN SIZE : 5

21-NOV-2018

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The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

Joanne Despres

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

Heat: 0110119

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date
21-NOV-2018

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT
AC00021532

Invoice Number
T386166

PART NUMBER/NUMÉRO DE PIÈCE
108425

SOLD TO:	ACIER OUELLETTE INC.	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:	DIVISION SALABERRY DE VALLEYFIELD	EXPÉDIÉ À:	DIVISION SALABERRY DE VALLEYFIELD
	935, BOUL. DU HAVRE		935, BOUL. DU HAVRE
	SALABERRY-DE- VALLEYFIELD QC J6S 5L1		SALABERRY-DE- VALLEYFIE QC J6S

Description: 1026 DOM SRA A513/5
5.250 OD X 4.500 ID S/C 12'0" (144.0")

Line Total: 12 FT

HEAT: 0110119 ITEM: 108425

STRAND CAST MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL
EDDY CURRENT: YES
ULTRASONIC: YES

COMMENTS

melt mill severstal dearborn
melt country usa
melt practice basic oxygen
red. ratio > 6:1
dfars compliant yes

PAR E-MAIL LE 22 NOV. 2018

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.
The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES


MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

8 7 6 5 4 3 2 1

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW RELEASE	17-655	17 09 06	VM	VM
B	TYPE 5 ADDED, TEMPLATE UPDATED	17-790	17 12 13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ASTM A513 TYPE 5 (1020/1026) SEAMLESS ALLOY STEEL ROUND TUBING (DOM)

SPECIFICATION:

ASTM A513 TYPE 5

PART NUMBER:

MT-A513-T-[D.DDD]W[T.TTT]

WHERE D.DDD IS OUTSIDE DIAMETER IN INCHES

WHERE T.TTT IS WALL THICKNESS IN INCHES

EG. 3/4" ROUND TUBING WITH .120" WALL THICKNESS = MT-A513-T-0.750W0.120

DART AEROSPACE		Hemelock, Ontario, Canada	
TITLE: ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING (DOM)			
PART NO: MT-A513-T		REV: B	
TOOL NO:			
INITIALS AND DATE			
DESIGNED BY: VM 17/12/13	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS ARE TO BE SHOWN DIMENSIONS APPLY AFTER FINISHING		
DRAWN BY: VM 12/13/2017	TOLERANCES:		
CHECKED BY: ML 12/20/2017	XXX .005		
INFO REVIEW BY: DS 1/20/2017	XXX .01		
APPROVED BY: ML 12/20/2017	XXX .01		
SCALE: NTS		FINISHES: AS	
SHEET 1 OF 1		SURFACE: S U	
Part 070-001 is a property of DART Aerospace, Inc. and is not to be reproduced without written permission.			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-A513-T-S.250W0.375

PO / BATCH NO.: P0041674/S132038

DATE: 18/11/27

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 5.250"

QUANTITY RECEIVED: 124

THICKNESS RECEIVED: 5.250"

QUANTITY INSPECTED: 124

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<u>A57M A513 Type 5</u>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<u>MT: 0110119</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u> N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 61</u>		SIGNED OFF BY: _____	
DATE: <u>18/11/27</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

120175

Dart.

Chemical certification Certification chimique

21547N

Order Num / No. Commande AC-21547	Vendor / Fournisseur 29	Country of origin / Pay d'origine USA	Date 01/05/18	Heat / coulée L8121	Material ID # / No. matière
Grade / Nuance 4140 RD	Conditions				
Shape / Forme RD	Size / Dimension 9.000	Specifications ASTM A29-15			

Chemical composition / Analyse chimique				
Carbon (C)		Silicon (Si)		Manganese (Mn)
Mini / maxi	0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	Phosphorus (P)
Actuel %	0.410	0.270	0.970	0.0000 / 0.0000
Sulphur (S)		Chromium (Cr)		Nickel (Ni)
Mini / maxi	0.0000 / 0.0000	0.7500 / 1.2000	0.0000 / 0.0000	Molybdenum (Mo)
Actuel %	0.027	0.940	0.130	0.1500 / 0.2500
Cooper (Cu)		Vanadium (V)		Aluminum (Al)
Mini / maxi	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	Tungsten (W)
Actuel %	0.260	0.000	0.034	0.0000 / 0.0000
Cobalt (Co)		Titanium (Ti)		
Mini / maxi	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel %	0.000	0.000	0.000	0.000
Mechanical properties / Propriétés Mécaniques				
Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC
800.200 PSI	116.144 PSI	18.30	40.00	269 BHN

Note:

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

heat: L8121


SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 ROUND BAR
 MINIMUM ROCKWELL C = 20 Rc
 MAXIMUM ROCKWELL C = 38 Rc

SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529

PART NUMBER: MT-4140-R-[D.DDD]
 WHERE "D.DDD" = DIAMETER IN INCHES
 EX. 4" ROUND BAR = MT-4140-R-4.000

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-790	17.12.13	VM	ML

	
TITLE AISI 4140 ROUND BAR	
PART NO. MT-4140-R	REV. A
TOLERANCES UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DECIMALS APPLY TO ALL DIMENSIONS	
DESIGNED BY: VM 17/12/13 DRAWN BY: VM 17/12/13 CHECKED BY: VM 17/12/13 APPROVED BY: ML 17/12/13	TOLERANCES: FRACTIONS ± .005 ANGLES ± .5° SURFACE ROUGHNESS SCALE: 1" = 1"
SHEET 1 OF 1 COPYRIGHT © 2013 BY DART AEROSPACE LTD	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140QT-R9.00
 DATE: 18/11/26

PO / BATCH NO.: P0041674/S121155

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 2.25ft
 QUANTITY INSPECTED: 2.25ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 9.000"
 THICKNESS RECEIVED: 9.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>A574 A29</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>MT: L8121</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> DATE: <u>18/11/26</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in